

Mineral Industry Surveys

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VANADIUM IN JULY 2006

Reported domestic consumption of vanadium in July 2006 was about 6% less than that of the previous month, and was about 11% more than that of July 2005, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 361 metric tons (t) at the beginning of 2006 and 320 t at the end of July.

According to Ryan's Notes (2006), U.S. ferrovanadium (FeV) prices ranged from \$19.250 to \$20.000 per pound of vanadium content in July, as compared with \$20.194 to \$20.889 in June. European FeV prices ranged from \$35.857 to \$36.714 per kilogram in July, as compared with \$38.444 to \$40.000 in June. Vanadium pentoxide (V_2O_5) prices ranged from \$7.571 to \$7.957 per pound in July, as compared with \$8.133 to \$8.433 in June.

Anglo American Plc. (United Kingdom) agreed to sell its 79% interest in Highveld Steel and Vanadium Corp. Ltd. (South Africa) to Russian steel conglomerate Evraz Group S.A.

(Luxembourg) for \$687 million. Evraz acquired 24.9% immediately and will acquire an equal 24.9% stake held by Credit Suisse through an option agreement once regulatory approval is received. Evraz also obtained a second option to purchase the final 29.2%. A staged purchase was necessary because once Evraz's ownership stake exceeds 35%, the company is required to make a purchase offer to all remaining stockholders. In April, Evraz purchased controlling interest in U.S.-based vanadium producer Strategic Minerals Corp., which also has mine and plant operations in South Africa (Metal Bulletin, 2006).

References Cited

Metal Bulletin, 2006, Evraz to buy Anglo's Highveld Steel & Vanadium: Metal Bulletin, no. 8953, July 17, p. 19.
Ryan's Notes, 2006, [untitled]: Ryan's Notes, v. 12, no. 31, August 7, p. 10.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM¹

(Kilograms, contained vanadium)

	2005 ^p		2006			
			June		July	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,430,000	335,000	298,000	341,000 ^r	283,000	301,000
Vanadium-aluminum alloy	W	W	W	W	W	W
Other ³	260,000	25,700	27,400	16,100	22,300	18,800
Total	3,690,000	361,000	325,000	357,000 ^r	305,000	320,000

^pPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Other."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

³Includes other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, other specialty chemicals, and items indicated by symbol W.

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE¹

(Kilograms, contained vanadium)

	2005 ^p	2006		
		June	July	Year to date
Steel:				
Carbon	902,000	86,600	81,800	561,000
High-strength low-alloy	1,060,000	89,700	87,800	608,000
Stainless and heat-resisting	59,900	5,060	5,060	35,400
Full alloy	1,000,000	90,600 ^r	84,500	621,000
Tool	401,000	25,900	23,500	182,000
Total steel	3,430,000	298,000 ^r	283,000	2,010,000
Superalloys	9,610	527	511	2,690
Miscellaneous and unspecified ²	253,000	27,200	22,100	159,000
Total consumption	3,690,000	325,000	305,000	2,170,000

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes cast irons, alloys excluding steel and superalloys, chemical and ceramic uses, and other miscellaneous and unspecified uses.

TABLE 3
U.S. IMPORTS AND EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY AND
VANADIUM METAL, INCLUDING WASTE AND SCRAP¹

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
2005	1,010	\$15,500	54,800	\$3,800,000
2006:				
April	--	--	21,100	807,000
May	--	--	5,590	239,000
June:				
Brazil	102,000	312,000	--	--
Germany	--	--	18,900	689,000
Russia	--	--	16,700	645,000
Total	102,000	312,000	35,600	1,330,000
Year to date	102,000	312,000	67,200	3,070,000
Exports:				
2005	14,100,000	42,000,000	293,000	1,640,000
2006:				
April	2,580,000	7,690,000	138,000	995,000
May	857,000	4,030,000	46,400	1,620,000
June:				
Belgium	24,100	314,000	10,400	348,000
Brazil	9,500	48,100	2,390	70,400
Canada	130,000	579,000	152	4,530
China	12,100	65,300	--	--
Germany	--	--	4,750	110,000
India	4,040	21,700	--	--
Israel	--	--	17	3,220
Japan	48,600	608,000	14,800	550,000
Malaysia	3,740	19,500	--	--
Mexico	1,360,000	4,670,000	--	--
Sweden	--	--	454	16,600
Thailand	46,600	231,000	--	--
United Kingdom	10,800	63,500	--	--
Total	1,650,000	6,620,000	32,900	1,100,000
Year to date	12,500,000	34,300,000	286,000	6,940,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM¹

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) ²		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2005	12,000,000	\$131,000,000	1,410,000	\$52,900,000	213,000	\$6,540,000
2006:						
April	175,000	7,430,000	137,000	3,350,000	34,000	535,000
May	268,000	11,400,000	211,000	4,470,000	--	--
June:						
Austria	15,400	674,000	4,180	135,000	--	--
Canada	7,320	333,000	--	--	--	--
China	531	23,600	34,000	1,070,000	--	--
Czech Republic	178,000	7,940,000	--	--	--	--
Germany	--	--	999	22,000	--	--
Korea, Republic of	15,400	590,000	--	--	--	--
Russia	--	--	56,500	1,020,000	--	--
South Africa	--	--	90,400	2,090,000	31,900	963,000
Taiwan	--	--	7,230	244,000	--	--
Total	216,000	9,560,000	193,000	4,570,000	31,900	963,000
Year to date	1,160,000	51,300,000	1,170,000	35,900,000	105,000	2,900,000
Exports:						
2005	500,000	19,100,000	247,000	5,340,000	822,000	14,500,000
2006:						
April	56,300	1,170,000	36,200	773,000	134,000	1,000,000
May	53,400	1,720,000	59,300	1,180,000	57,200	518,000
June:						
Canada	21,100	711,000	--	--	65,000	578,000
Mexico	1,090	41,100	--	--	--	--
Netherlands	--	--	--	--	9,090	148,000
Total	22,200	752,000	--	--	74,100	727,000
Year to date	252,000	7,340,000	199,000	4,190,000	905,000	4,850,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include catalysts containing vanadium pentoxide.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG¹

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)	
	Quantity	Value	Quantity	Value
2005	4,360,000	\$9,820,000	6,850,000	\$1,100,000
2006:				
April	--	--	103,000	96,000
May	--	--	92,400	97,500
June, Canada	--	--	49,700	79,100
Year to date	128,000	1,450,000	595,000	605,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MISCELLANEOUS VANADIUM
CHEMICALS¹

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2005	35,000	\$77,000	91,700	\$2,800,000
2006:				
April	--	--	6,430	465,000
May	4	8,460	16,700	341,000
June:				
Germany	--	--	291	26,500
India	12	17,300	--	--
Japan	--	--	2,000	6,490
Netherlands	--	--	2,460	78,600
South Africa	--	--	6,270	170,000
United Kingdom	--	--	1	2,010
Total	12	17,300	11,000	283,000
Year to date	16	25,800	79,400	2,390,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.